

60 cubic feet per minute.

33. The dirt collecting system for a floor care appliance of claim 32, wherein said at least one layer of a filtration media is expanded polytetrafluoroethylene.--

REMARKS

This Response to Office action is submitted in response to the Office action dated May 21, 2003.

In the Office action, the Examiner stated that claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over anyone of Requejo et al (5,090,975; Abstract; 22, 23 & 24 in Fig. 2; col. 1, lines 15-24; col. 7, lines 40-56), Zhang (6,156,086; Abstract; col. 3, line 25 through col. 4, line 9; col. 8, lines 51-58) and Bosses (5,080,702; Fig. 1; col. 3, lines 56-66; col. 4, lines 19-20), in view of Maeoka et al (6,030,484; Abstract; col. 1, lines 5-10, lines 29-35 and line 61 through col. 2, line 15; col. 2, lines 26-29) and Wnenschak et al (6,110,243; col. 4, lines 7-46).

Further, according to the Examiner, anyone of Requejo et al, Zhang and Bosses discloses a disposable filtration bag for a floor care appliance comprising a closed receptacle for collecting dirt particles having an inlet opening for allowing a dirt laden air stream to enter. Yet even further, according to the Examiner, Requejo et al discloses the bag comprising cellulose or synthetic fibers such as polyolefin, and the front panel portion and bottom panel portion sealed together by folding and an adhesive or by mechanical means such as sewing or by thermal bonding. Still even further, according to the Examiner, Zhang discloses the filter bag comprising polyolefin and the sidewalls of bag are joined by seams via thermal bonding

method. The Examiner stated that Bosses discloses the filter bag can be made out of wood paper, hemp paper or any other filter paper or fabric well-known in the art. The Examiner further stated that Bosses further discloses a vacuum cleaner comprising a suction nozzle, a motor fan assembly and a disposable filtration bag. According to the Examiner, either Requejo et al or Zhang discloses a method of making a disposable filtration bag comprising the steps of providing a sheet of composite material, folding sheet of composite material, sealing together respective edges by a seam, and providing an aperture in a front sidewall of the receptacle where in a dirt laden air stream enters. Further, according to the Examiner, claims 1-26 differ from the disclosure of any one of Requejo et al, Zhang and Bosses in that the filter bag has one layer of expanded polytetrafluoroethylene. Yet even further according to the Examiner, both Maeoka et al and Wnenchak et al disclose an air filter comprising a laminate of non woven fabric made up of polyolefin or polyester fibers or a composite of the non woven fabrics and a PTFE porous film.

The Examiner reasons that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a layer of PTFE film as taught by either Maeoka et al or Wnenchak et al in the filtration bag of any one of Requejo et al, Zhang and bosses since PTFE film is well known in the art that filter media made from thin membrane of ePTFE, which is particularly light weight and flexible, air flow through the filter element is very high relative to conventional laminated materials and, accordingly, very low energies are required to dislodge the collected dirt from its surface.

However, with all due respect to the Examiner, applicant disagrees. Nowhere in Maeoka or Wnenchak does it teach or suggest providing a layer of ePTFE in a disposable

filtration bag such as that disclosed in the Zhang, Requejo and Bosses references. Maeoka et al. discloses an air filter made from a laminate of a non-woven fabric comprised of a composite of non-woven fabrics and a PTFE porous film. The filter bag assembly in Wnenchak et al. is comprised of a support structure made of metal or plastic and a filter media of ePTFE. The filter bag assembly is used for cleaning a gas stream of particulates and the layer of ePTFE provides superior gas filtration as well as easy cleaning by pulse jet or shaking techniques. Such an arrangement is unsuitable for use in a floor care appliance which requires a disposable filtration bag. Additionally, there is no teaching or suggestion in Wnenchak et al. that the arrangement can be used for filtering a stream of particle laden air in a floor care appliance. Applicant would like to point out to the Examiner that there is a difference between the PTFE taught in Maeoka et al. and the ePTFE membrane taught in Wnenchak et al. Both the PTFE and ePTFE are very fragile and difficult to form into a suitable filtration media.

However, as taught in Wnenchak et al., col. 2, lines 40-62, it was found that the expanded PTFE had superior filtration characteristics despite it being even more fragile than the PTFE. The ePTFE was laminated to a surface laminate on conventional filter elements such as filter cartridges or the instant filter bag assembly. Due to the inherent difficulties of utilizing the highly fragile ePTFE membrane as a filtration media even when laminated to a substrate, applicant submits that it is non-obvious to laminate a layer of ePTFE to a substrate and then form the resulting composite sheet into a disposable filtration bag for a floor care appliance. If it were obvious, applicant submits that the arrangement would be known by now or could be readily made by one with ordinary skill in the art. This is not the

case since applicant has spend a significant amount of time and resources developing a composite sheet of a layer of ePTFE and a substrate that can be formed into a disposable filtration bag for a floor care appliance which can endure the manufacturing process and maintain what is known in the industry as a "HEPA" rating. Particularly destructive of the ePTFE membrane is the folding of the composite sheet during the manufacturing process. Applicant has successfully formed a composite sheet made from a layer of ePTFE and substrate which can endure the folding, cutting and gluing required to form the sheet into a disposable filtration bag for a floor care appliance without injuring the layer of ePTFE and compromising the desired "HEPA" rating. In addition, applicant devoted significant resources to developing a manufacturing process to manufacture the instant disposable filtration bag to prevent injury to the ePTFE membrane to protect the "HEPA" rating.

Applicant submits that he is unaware of any other individual or entity that has conceived or reduced to practice a disposable filtration bag for a floor care appliance utilizing an ePTFE membrane laminated to a substrate and is entitled to priority of invention because applicant has been the first to conceive and to reduce to practice the instant disposable filtration bag. In an interference proceeding, priority of invention belongs to the first party to reduce the invention to practice unless the other party can establish that it was the first to conceive the invention and that it exercised reasonable diligence in later reducing the invention to practice. *Price v. Symsek*, 988 F.2d 1187, 1190, 26 USPQ2d 1031, 1033 (Fed. Cir. 1993).

Further, to show reduction to practice, the junior party must demonstrate that the invention is "suitable for its intended purpose." *Steinberg v. Seitz*, 517 F.2d 1359, 1363, 186 USPQ 209, 212 (CCPA 1975)(quoting *In re Dardick*, 496 F.2d 1234, 1238, 181 USPQ 834,

837 (CCPA 1974)). When testing is necessary to show proof of actual reduction to practice, the embodiment relied upon as evidence of priority must actually work for its intended purpose. *Newkirk v. Lulejian*, 825 F.2d 1581, 1582, 3 USPQ2d 1793, 1794 (Fed. Cir. 1987).

Applicant conceived of the instant HEPA disposable filtration bag no later than February 10, 1998 and has conducted testing to ensure that the instant disposable filtration bag actually works for its intended purpose, i.e., filtering dirt particles from a stream of dirt laden air according to the standard known in the industry as "HEPA". Applicant has submitted samples of the instant disposable filtration bag to a third party laboratory for testing to verify that instant disposable filtration bag will filter dirt particles according to the "HEPA" standard. The third party laboratory has confirmed on June 13, 2002 that the instant disposable filtration bag will filter dirt particles according to the "HEPA" standard. Although the instant matter is not an interference proceeding, applicant is prepared to submit affidavits of individuals involved in the conception, reduction to practice, and testing of the instant disposable filtration bag to verify the veracity of his claims.

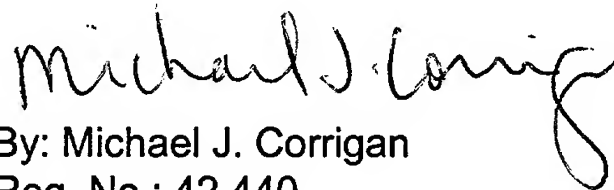
Applicant submits, for at least these reasons, that it would not have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a layer of PTFE film as taught by either Maeoka et al or Wnenchak et al in the filtration bag of any one of the Requejo et al, Zhang and Bosses references and that the rejection of claims 1-26 should be withdrawn.

Applicant has submitted new claims drawn more broadly to a disposable filtration bag requiring only that the bag filter particles according to the HEPA standard of filtering 99.97% of particles 0.3 microns.

It is believed that above amendment places the present application in condition for allowance. Therefore, it is respectfully requested that this application be examined and an appropriate office action be issued.

RESPECTFULLY SUBMITTED

PARKS

A handwritten signature in cursive script, reading "Michael J. Corrigan". The signature is written in dark ink and is positioned above the printed name and registration number.

By: Michael J. Corrigan
Reg. No.: 42,440

The Hoover Company
101 East Maple Street
North Canton, OH 44720
Telephone: (330) 499-9200, Ext. 2930
Facsimile: (330) 497-5004